

## ABSTRACT

Chimeric insect hormone receptors and receptor cassettes are provided as well as methods for their use in regulating expression of target polypeptides in plants in the presence of appropriate chemical ligands. In particular, each receptor cassette encodes a receptor polypeptide that comprises a DNA binding domain, a hinge region, a ligand binding domain and an activation domain. According to one embodiment, the hinge and ligand binding domains are from two different insect ecdysone receptors. According to another embodiment, the receptor cassettes are chimeric in that one or more of the DNA binding or activation domains are obtained from a source heterologous with respect to the other domains present in the chimeric receptor cassette.